#### **BMC 15.10 CONSTRUCTION CODES** Sections: 15.10.010 Short title. 15.10.020 Purpose. Sound and hours of construction. 15.10.030 15.10.040 Referenced codes. Code conflicts resolution. 15.10.050 15.10.060 International Building Code adopted. 15.10.070 International Residential Code adopted. 15.10.080 International Mechanical code adopted. 15.10.090 National Fuel Gas Code (NFPA 54) adopted. 15.10.100 Liquefied Petroleum Gas Code (NFPA 58) adopted. 15.10.110 International Fuel Gas Code adopted. Uniform Plumbing Code adopted. 15.10.120 Washington State Energy Code adopted. 15.10.130 Burien Electrical Code adopted. 15.10.140

### 15.10.010 Short title.

This chapter is known as and may be referred to as the "city of Burien Building and Construction Code" and may be cited as such.

# 15.10.020 Purpose.

The purpose of the codes and regulations adopted by this title is to promote the health, safety, and welfare of the occupants or users of buildings and structures and the general public, by the provision of construction codes throughout the city and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected by the terms of these codes and regulations. More specifically, this chapter is designed to effectuate the following purposes, objectives and standards:

- (1) To set forth minimum performance standards and requirements for construction and construction materials, consistent with nationally accepted standards of engineering and fire and life safety.
- (2) To permit the use of current technical methods, devices and improvements.
- (3) To eliminate restrictive, obsolete, conflicting, duplicative and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (4) To provide standards and specifications for making buildings and facilities accessible to and usable by physically challenged persons.
- (5) To consolidate the administration and enforcement of building and construction codes.

#### 15.10.030 Sound and hours of construction.

Sounds originating from construction sites, including but not limited to sound from construction equipment, power tools and hammering, are prohibited between the hours of 10:00 p.m. to 7:00 a.m. on weekdays and 10:00 p.m. to 9:00 a.m. on weekends, as regulated in BMC 9.105.400.

### 15.10.040 Referenced codes.

Specific codes referenced in the general codes adopted by this chapter shall be as follows:

- (1) Any and all reference to the International Plumbing Code shall be replaced with the Uniform Plumbing Code as adopted in BMC 15.10.120.
- (2) Any and all reference to the International Property Maintenance Code shall be replaced with the Burien Building and Property Maintenance Code as adopted in Chapter 15.40 BMC.
- (3) Any and all reference to the International Electrical Code, National Electrical Code or NFPA 70 shall be replaced with the Burien Electrical Code as adopted in BMC 15.10.140.

### 15.10.050 Code conflicts resolution.

(1) The codes enumerated in Title 15 BMC are adopted by the State Building Code Council as provided in RCW 19.27.074 and amended by the State Building Code Council from time to time, and are enacted by the State Legislature.

The State Legislature mandates, as provided in RCW 19.27.050, that all counties and cities throughout the state shall enforce the codes and all amendments thereto. Therefore, the city of Burien automatically adopts by reference these codes and their respective amendments as they are adopted and amended by the State Legislature.

- (2) In case of conflict among the International Building Code, the International Residential Code, the International Mechanical Code, the International Fire Code and the Uniform Plumbing Code, the first named code shall govern over those following.
- (3) In case of conflict between other codes and provisions adopted by this chapter, the code or provision that is the most restrictive, as determined by the building official, shall apply.

# 15.10.060 International Building Code adopted.

The 2009 Edition of the International Building Code (IBC), as published by the International Code Council, Inc. and as adopted by the State Building Code Council in Chapter 51-50 WAC, and including Appendix Chapter E (Accessibility), ICC A117.1-2003 (Accessible Standards), Appendix Chapter H (signs), and Appendix Chapter J (Grading), excluding Chapter 1, Administration, is herby adopted by reference, together with the amendments set forth in this section. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used in place of IBC Chapter 1, Administration.

(1) The 2009 International Existing Building Code (IEBC) is included in the adoption of this code in Section 3401.5 and amended in WAC 51-50-480000, excluding Chapter 1, Part 2 –

Administration. The Construction Administrative Code as set forth in Chapter 15.05 BMC shall be used in place of IEBC Chapter 1, Part 2 – Administration.

- (2) The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.
- (3) The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing, except as provided by rule adopted under Chapter 70.114A RCW or Chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.
- (4) The provisions of this code do not apply to Vendor Carts. "Vendor cart" means a mobile, portable means of containing or transporting merchandise, vegetables, fruits, or other inventory for the purpose of retail sales. "Vendor cart" shall not mean a building or structure, as defined in this code. Unless otherwise exempted, separate plumbing, electrical and mechanical permits shall be required.
- (5) Add new stand-alone section as follows:

Design Criteria shall be as follows:

**GROUND AND ROOF SNOW LOAD: 25 PSF** 

SEISMIC DESIGN CATEGORY: D

WIND SPEED: 70 mph sustained with 85 mph 3 sec. gust WIND EXPOSURE: Site Specific. See IBC Section 1609.4

SOIL BEARING: Site specific. See IBC Chapter 18

WEATHERING: Moderate

FROST LINE DEPTH: 12 inches
TERMITE: Slight to moderate

**DECAY: Slight to moderate** 

WINTER DESIGN TEMPERATURE: 24°F
SUMMER DESIGN TEMPERATURE: 83°F

ICE SHIELD UNDERLAYMENT REQUIRED: No

FLOOD HAZARDS: See BMC 15.55 AIR FREEZING INDEX: 148°F- days

MEAN ANNUAL TEMPERATURE: 51.4 °F.

(6) Amend IBC Section 403.4.7, Standby power, as follows: Add the following sentence to the end of the first paragraph:

- **403.4.7 Standby power.** A standby power system complying with Chapter 27 shall be provided for standby power loads specified in Section 403.4.7.2. <u>Fuel-fired emergency generators sets and associated fuel storage, including optional generator sets, located more than 75 feet above the lowest level of Fire Department vehicle access require the approval of the Fire Code Official.</u>
- (7) Amend IBC Section 403.4.7.1 Special requirements for standby power systems to read as follows:
  - **403.4.7.1 Special requirements for standby power systems**. If the standby system is a generator set inside a building, the system shall be located in a separate room enclosed with 2-hour *fire barriers* constructed in accordance with Section 403.4.7.1.1 and Section 707 or *horizontal assemblies* constructed in accordance with Section 712, or both. System supervision with manual start and transfer features shall be provided at the fire command center.
- (8) Add new IBC Section 403.4.7.1.1 Penetrations, to read as follows:
  - 403.4.7.1.1 Penetrations. Penetrations into and openings through a room containing a standby power system are prohibited except for required exit doors, equipment and ductwork necessary for heating, cooling or ventilation, sprinkler branch line piping, or electrical raceway serving the standby power system or being served by the standby power system. Such penetrations shall be protected in accordance with Section 713.

**Exception:** Metallic piping with no joints or openings where it passes through the standby power system room.

- (9) Amend IBC Section 403.4.7.2, Standby power loads to add a fourth item to read as follows:
  - **403.4.7.2 Standby power loads.** The following are classified as standby power loads:
    - 1. Power and lighting for the fire command center required by Section 403.4.5;
    - 2. Ventilation and automatic fire detection equipment for smokeproof enclosures;
    - 3. Standby power shall be provided for elevators in accordance with Sections 1007.4, 3003, 3007 and 3008: and
    - 4. Smoke control systems.
- (10) Add new IBC Section 403.7, Smoke control, and amend to read as follows:
  - **403.7 Smoke control**. A smoke control system meeting the requirements of Section 909 shall be provided in buildings having floors more than 75 feet above the lowest level of fire department vehicle access.
- (11) Amend IBC Section 405.8, Standby power, as follows: Add the following sentence to the end of the paragraph:
  - **405.8 Standby power.** A standby power system complying with Chapter 27 shall be provided standby power loads specified in Section 405.8.1. <u>Fuel-fired emergency generator sets and associated fuel storage, including optional generator sets, located</u>

more than 30 feet below the lowest level of exit discharge require the approval of the fire code official.

(12) Amend IBC Table 508.4 Required Separation of Occupancies (Hours) as follows:

Add footnote reference superscript "g" to R and group I-1 Occupancy Classification row and column headings. Add footnote g. to read: See Section 419 for Live/Work Unit separations. See Section 420 for Dwelling Unit separation requirements.

(13) Amend IBC Section 708.2, "Shaft enclosure required", as follows: Revise Exception 2.1 the last sentence to read:

**708.2 Shaft enclosure required.** Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

### **Exceptions:**

- 2. A shaft enclosure is not required in a building equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 for an escalator opening or *stairway* that is not a portion of the *means of egress* protected according to Item 2.1 or 2.2.
  - 2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories. This application is limited to openings that do not connect more than four stories in buildings not required to have smoke control systems. In buildings that are required to have smoke control systems, escalators are limited to openings that do not atmospherically connect more than four stories, and non-egress stairs are limited to openings that do not atmospherically connect more than two stories.
- (14) Amend IBC Section 903.2 Automatic sprinkler systems to read as follows:
  - **903.2 Where required**. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12, <u>WAC 51-50-903</u> and in all buildings with a gross area of 5,000 square feet or greater, regardless of type or use.

**Exceptions:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour *fire barriers* constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.

For the purposes of this section, fire walls as specified in Section706 of the International Building Code shall not be used to reduce the calculation of floor areas of this chapter.

(15) Amend IBC Section 906, Portable Fire Extinguishers subsection 906.1, where required by deleting the exception as follows:

**906.1 Where required.** Portable fire extinguishers shall be installed in the following locations.

- In new and existing Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies.
   Exception: In new and existing Group Λ, B and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.
- 2. Within 30 feet (9144 mm) of commercial cooking equipment.
- 3. In areas where flammable or combustible liquids are stored, used or dispensed.
- 4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 1415.1 of the *International Fire Code*.
- 5. Where required by the *International Fire Code* sections indicated in Table 906.1.
- 6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.
- (16) Amend IBC Section 907.1.3, Equipment, as follows: Add the following sentence to the end of the paragraph:
  - **907.1.3 Equipment. Systems** and their components shall be listed and approved for the purpose for which they are installed. <u>All new alarm systems shall be addressable. Each device shall have its own address and shall annunciate individual addresses at the approved supervising station.</u>
- (17) Add new IBC Section 907.2.24, System Installation, to read as follows:
  - 907.2.24 System installation. Fire alarm systems shall be installed and maintained in accordance with this code by persons under the direct supervision of individuals that have factory training and certification on the system being installed. Plans submitted for Fire Alarm System permits shall be prepared under the supervision of individuals possessing a NICET (National Institute for Certification in Engineering Technologies)

    Level III certification in Fire Alarm Systems or shall be licensed by the State of Washington as a Professional Fire Protection or Electrical Engineer or certified by the State of Washington. Plans shall identify certification and/or licensing information.
- (18) Add new IBC Section 911.1.2.1, Penetrations, to read as follows:
  - 911.1.2.1 Penetrations. Penetrations into and openings through a fire command center are prohibited except for required exit doors, equipment and ductwork necessary for heating, cooling or ventilation, sprinkler branch line piping, electrical raceway for fire department communication and control, and electrical raceways serving the fire command center or being controlled from the fire command center. Such penetrations shall be protected in accordance with Section 713.

# **Exception:** Metallic piping with no joints or openings.

- (19) Amend IBC Section 1503.4 roof drainage to revise reference to the Uniform Plumbing code and add new section 1503.4.4, Discharge and Disposal to read as follows:
  - [P] 1503.4 Roof drainage. Design and installation of roof drainage systems shall comply with Section 1503 and the *International Plumbing Code* Chapter 11 of the Uniform Plumbing Code.
    - **1503.4.4 Discharge and Disposal.** Roof top drainage shall be disposed of by one of the following methods:
    - 1. Tight line to a storm water system (private or public).
    - 2. Tight line to a roof-runoff infiltration system.
    - 3. Concrete splash blocks.
      - **1503.4.4.1 Tight line.** A tight line with direct discharge to an abutting property or the right-of-way is prohibited unless specifically approved by the building official on the construction plans/permit.
      - 1503.4.4.2 Review Required. In all cases the method selected shall be subject to review and approval by the building official and/or the city Public Works Department, with consideration given to site, soil types, slope condition and the nature of the development.
      - 1503.4.4.3 Standards. All drainage systems both public and private shall be designed in accordance with storm water standards adopted by the city of Burien.
      - <u>1503.4.4.4</u> "Green Roof technology". "Green roof" technology may be approved by the building official provided that any drainage coming off of the roof is collected and disposed of pursuant to Sec 1503.4.4.1.
- (20) Amend IBC Section 1608.1, General, to read as follows:
  - **1608.1 General.** Design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not less than 25 PSF uniform roof snow load, nor less than that determined by IBC Section 1607.
- (21) Amend IBC Section 1612.3, Establishment of flood hazard areas.1612.3, to read as follows:
  - **1612.3 Establishment of flood hazard areas**. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for [INSERT NAME OF JURISDICTION], King County" dated [INSERT]

<del>DATE OF ISSUANCE], September 2007,</del> as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

(22) Amend IBC Section 1704.14, Exterior insulation and finish systems (EIFS), to read as follows:

**1704.14 Exterior insulation and finish systems (EIFS).** Special inspections shall be required for all EIFS applications. <u>All exterior insulation finish systems (EIFS) shall be certified by the manufacturer as having been installed per the manufacturer's installation recommendations or other agency approved by the building official. The manufacturer's certification shall serve as the special inspection requirement when approved by the building official.</u>

# **Exceptions** Exception:

1. Special inspections shall not be required for EIFS applications installed over a water-resistive barrier with a means of draining moisture to the exterior.

Special inspections shall not be required for EIFS applications installed over masonry or concrete walls.

- **1704.14.1 Water-resistive barrier coating.** A water-resistive barrier coating complying with ASTM E 2570 requires special inspection of the water-resistive barrier coating when installed over a sheathing substrate.
- (23) Amend IBC Section 2701.1, Scope, to read as follows:
  - **2701.1 Scope.** This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of NFPA 70 the Burien Electrical Code as adopted in BMC 15.10.140.
- (24) Add new IBC section 2702.1.1, Location, to read as follows:
  - **2702.1.2 Location.** Location of stationary generators, fuel piping, and storage tanks are subject to the approval of the building official and/or fire code official.
- (25) Amend IBC Section 3002.4, Elevator car to accommodate ambulance stretcher, to read as follows:
  - **3002.4 Elevator car to accommodate ambulance stretcher**. In buildings four stories in height or more above grade plane or four or more stories below grade plane and in buildings which are required to have an elevator and contain Group R-1, R-2 or I Occupancies on a level other than the exit discharge level, or in any R1, R2 or I occupancy building provided with an elevator regardless of the number of stories, at least one elevator shall be provided for fire department emergency access to all floors. Such elevator car shall be of such a size and arrangement to accommodate a 24-inch by

84-inch (610 mm by 2134 mm) ambulance stretcher with not less than 5-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame.

- (26) Amend IBC Section 3303, Demolition standards, is amended to read as follows:
  - <u>3303.1</u> **Purpose.** The purpose of this section is to establish standards by which demolition of existing structures is to be conducted. The proposed standards are intended to ensure that the public health, safety and welfare are protected when structures are removed. If demolition is proposed along with an application for a construction permit or reuse of a property, <u>subsections</u> (5) 3303.5 and (9) 3303.11 do not apply. Following demolition of any structure the property shall be altered to a condition that will not create an attractive nuisance or be unsightly to neighboring properties, public streets and pedestrian facilities. This purpose statement shall be preeminent.
  - **3303.1 3303.2 Construction Documents**. Construction documents and a schedule for demolition must be submitted when required by the Building Official. Where such information is required, no work shall be done until such construction documents or schedule, or both, are approved.
  - 3303.3 Permit Required. A demolition permit is required for any structure to be removed. The demolition permit may be conditioned as necessary to mitigate adverse impacts associated with demolition activities and the aesthetic condition of the vacant site following demolition. All demolition work shall be completed within 30 days from commencement of demolition activity provided that site restoration work shall be completed as provided in section 3303.11.
  - 3303.4 Nuisances. The activity shall not create or exacerbate a nuisance as defined by BMC 8.45.020.
  - <u>and Surface Restoration.</u> All foundations and/or related materials shall be removed from the site. Unless otherwise approved by the city, all man-made or processed surfaces including but not limited to driveways, asphalt, patios or sidewalks shall be removed, except in the public right-of-way.
  - **3303.2 3303.6 Pedestrian protection.** The work of demolishing any building shall not be commenced until pedestrian protection is in place as required by this chapter.
  - **3303.7 Means of egress.** A party wall balcony or horizontal exit shall not be destroyed unless and until a substitute means of egress has been provided and approved
  - 3303.4 3303.8 Vacant Lot. Where a structure has been demolished or removed, the vacant lot shall be filled and maintained to the existing grade or in accordance with the ordinances of the jurisdiction having authority. This requirement may be waived if grading would require the alteration of a critical area and/or its buffer. It may also be waived if grading activity could result in soil instability.

<u>3303.9</u> <u>Erosion Control.</u> All areas that have been disturbed by demolition activity shall be stabilized to prevent erosion. Erosion control measures shall comply with adopted best management practices and shall be in place prior to and during any demolition activity.

**3303.10** Water Accumulation. Provisions shall be made to prevent the accumulation of water or damage to any foundations on the premises or the adjoining property.

<u>3303.11</u> <u>Site Restoration Required</u>. Restoration of properties shall be completed within 4 months of the issuance of a demolition permit. The city may require a financial guarantee to ensure proper installation, establishment and maintenance of a restoration plan. Areas of a site that have been disturbed shall be re-vegetated with an approved hydro-seed mixture.

3303.12 Utility Connections. Service utility connections shall be discontinued and capped in accordance with the approved rules and the requirements of the applicable governing authority. All service utilities shall be properly capped or terminated at property lines or at the service connection in the right-of-way unless otherwise approved by the Building Official. Utilities Removal and/or decommissioning of utilities shall be completed in accordance with all applicable laws and procedures including but not limited to the IFC, IBC, WAC and RCW.

(27) Amend IBC Section 3412.2, Applicability as follows: Insert applicable date:

**3412.2 Applicability** Structures existing prior to [DATE TO BE INSERTED BY THE JURISDICTION. NOTE: IT IS RECOMMENDED THAT THIS DATE COINCIDE WITH THE EFFECTIVE DATE OF BUILDING CODES WITHIN THE JURISDICTION] July 1, 2010, in which there is work involving additions, alterations or changes of occupancy shall be made to comply with the requirements of this section or the provisions of Sections 3403 through 3409. The provisions in Sections 3412.2.1 through 3412.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.

(28) IBC Section H104, Identification, is deleted as follows:

**H104.1** Identification. Every outdoor advertising display sign hereafter erected, constructed or maintained, for which a permit is required shall be plainly marked with the name of the person, firm or corporation erecting and maintaining such sign and shall have affixed on the front thereof the permit number issued for said sign or other method of identification approved by the building official.

### 15.10.070 International Residential Code adopted.

The 2009 Edition of the International Residential Code, as published by the International Code Council Inc. and as adopted by the State Building Code Council in Chapter 51-51 WAC, including Appendix Chapter G, Swimming Pools, Spas and Hot Tubs, WAC 51-51-60105 - Appendix Chapter R, Dwelling Unit Fire Sprinkler Systems, WAC 51-51-60107 – Appendix S, Fire Sprinklers, and excluding Chapters 1, 11, 25-43, is hereby adopted by reference, together with

the amendments set forth in this section. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used in place of IRC Chapter 1, Administration.

- (1) Energy Code requirements are regulated by Chapter 51-11 WAC (WSEC) as adopted and amended in BMC 15.10.130.
- (2) Plumbing Code requirements are regulated by Chapter 51-56 WAC (UPC) as adopted and amended in BMC 15.10.120.
- (3) Electrical Code requirements are regulated by Burien Electrical Code (WCEC) as adopted in BMC 15.10.140.
- (4) Except where required by the International Fire Code for access or fire flow, an automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.
- (5) Amend IRC Table R301.2, Climatic and geographic design criteria, to include local design values as follows:
  - **R301.2 Climatic and Geographic design criteria.** Buildings shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local jurisdiction and set forth in Table R301.2 (1). Design values for Table R-301.2(1) shall be as follows:

GROUND AND ROOF SNOW LOAD: 25 PSF

WIND SPEED: 70 mph sustained with 85 mph 3 sec. gust

TOPOGRAPHIC EFFECTS: Not Applicable

SEISMIC DESIGN CATEGORY: D2

WEATHERING: Moderate

FROST LINE DEPTH: 12 inches

TERMITE: Slight to moderate

**DECAY: Slight to moderate** 

WINTER DESIGN TEMPERATURE: 24°F.

SUMMER DESIGN TEMPERATURE: 83°F.

ICE SHIELD UNDERLAYMENT REQUIRED: No

FLOOD HAZARDS: <u>See BMC 15.55</u>

AIR FREEZING INDEX: 148°F.- days

MEAN ANNUAL TEMPERATURE: 51.4 °F.

SOIL BEARING (Assumed): 1500 PSF

(6) Amend IRC Appendix S, Fire Sprinklers, to read as follows:

**AS107.1** Fire sprinklers. An approved automatic fire sprinkler system shall be installed in new one-family and two-family dwellings and townhouses in accordance with Appendix R.

**EXCEPTION:** One -family and two-family dwellings and their attached accessory structures with a gross floor area less than 3600 square feet.

### 15.10.080 International Mechanical code adopted.

The 2009 Edition of the International Mechanical Code (IMC), as published by the International Code Council, Inc. and as adopted by the State Building Code Council in Chapter 51-52 WAC, excluding Chapter 1, Administration, is hereby adopted by reference together with the amendments set forth in this section. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used in place of IMC Chapter 1, Administration.

- (1) Amend IMC Section 501.2, Exhaust discharge to read as follows:
  - **501.2 Exhaust discharge**. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in Section 501.2.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawlspace.

### **EXCEPTIONS:**

- 1. Whole-house ventilation-type attic fans cooling fans shall be permitted to discharge into the attic space of dwelling units having private attics.
- 2. Commercial cooking recirculating systems.
- **501.2.1 Location of exhaust outlets.** The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:
  - 1. For ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet (9144 mm) from the property line; 10 feet (3048 mm) from operable openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into the building which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.
  - 2. For other product-conveying outlets: 10 feet (3048 mm) from property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from operable openings into the building; 10 feet (3048 mm) above adjoining grade.
  - 3. For environmental air exhaust other than enclosed parking garage and transformer vault exhaust: 3 feet (914 mm) from property lines, 3 feet (914 mm) from operable openings into buildings for all occupancies other that Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.

## **Exceptions:**

- 1. The separation between an air intake and exhaust outlet on a single listed package HVAC unit.
- 2. Exhaust from environmental air systems other than garages may be discharged into an open parking garage.

- 3. Except for Group I occupancies, where ventilation system design circumstances require building HVAC air to be relieved, such as during economizer operation, such air may be relieved into an open or enclosed parking garage within the same building.
- 4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the design flood level.
- 5. For enclosed parking garage exhaust system outlets and transformer vault exhaust system outlets: 10 feet (3048 mm) from property lines which separate one lot from another; 10 feet (3048 mm) from operable openings into buildings and 10 feet (3048 mm) above adjoining grade.

**Exception:** Parking garage and transformer vault exhaust outlets may terminate less than 10' above grade at the discretion of the building official.

- <u>6. For elevator machinery rooms in enclosed or open parking garages: Exhaust outlets may discharge air directly into the parking garage.</u>
- 5. 7. For specific systems see the following sections:
  - 5-7.1 Clothes dryer exhaust, Section 504.4.
  - 5-7.2 Kitchen hoods and other kitchen exhaust equipment, Sections 506.3, 506.4 and 506.5.
  - 5-7.3 Dust stock and refuse conveying systems, Section 511.
  - 5-7.4 Subslab soil exhaust systems, Section 512.4.
  - 5 7.5. Smoke control systems, Section 513.10.3
  - 5. 7.6 Refrigerant discharge, Section1105.7
  - 5. 7.7 Machinery room discharge, Section 1105.6.1
- (2) Amend IMC Section 504.4, Exhaust Installation to read as follows:
  - **504.4 Exhaust installation.** Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a back-draft damper. <u>Dryer exhaust ducts may terminate at approved exterior louvers with not less than 1" openings in any direction.</u> Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the exhaust flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

# 15.10.090 National Fuel Gas Code (NFPA 54) adopted.

The 2009 Edition of ANSI Z223.1/NFPA 54, National Fuel Gas Code (NFGC), as published by National Fire Protection Association (NFPA) and as adopted by the State Building Code Council in Chapter 51-52 WAC, is hereby adopted by reference. The Construction

Administrative Code, as set forth in Chapter 15.05 BMC, shall be used for the administration of the National Fuel Gas Code.

# 15.10.100 Liquefied Petroleum Gas Code (NFPA 58) adopted.

The 2008 Edition of NFPA 58, Liquefied Petroleum Gas Code (LPGC), as published by National Fire Protection Association (NFPA) and as adopted by the State Building Code Council in Chapter 51-52 WAC, is hereby adopted by reference. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used for the administration of the Liquefied Petroleum Gas Code.

### 15.10.110 International Fuel Gas Code adopted.

The 2009 Edition of the International Fuel Gas Code (IFGC), as published by the International Code Council, Inc. and as adopted by the State Building Code Council in Chapter 51-52 WAC, excluding Chapter 1 "Administration", is hereby adopted by reference together with the amendments set forth in this section. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used in place of IFGC Chapter 1, Administration.

(1) Amend IFGC Section 614.4, Exhaust installation to read as follows:

**614.4 Exhaust installation.** Exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a back-draft damper. <u>Dryer exhaust ducts may terminate at approved exterior louvers with not less than 1" openings in any direction.</u> Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

# 15.10.120 Uniform Plumbing Code adopted.

The 2009 Edition of the Uniform Plumbing Code (UPC), as published by the International Association of Plumbing and Mechanical Officials and as adopted and amended by the State Building Code Council in Chapters 51-56 and 51-57 WAC, including Appendix A – Recommended Rules for Sizing the Water Supply System; Appendix B – Explanatory Notes on Combination Waste and Vent Systems; Appendix I – Installation Standards. In addition, and Appendix L – Alternate Plumbing Systems, excluding Sections L5 through L7 is hereby adopted by reference together with the additions, deletions, exceptions, and amendments set forth in this section. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used in place of UPC Chapter 1, Administration; Chapters 12 and 15 of the Uniform Plumbing Code are not adopted; and, Those requirements of the Uniform Plumbing Code relating to venting and combustion air of fuel-fired appliances as found in Chapter 5 and those portions of the code addressing building sewers as identified in WAC 51-56 are not adopted.

(1) Amend UPC Section 312.0 Independent Systems as follows:

**312.0 Independent Systems.** The drainage system of each new building and of new work installed in any existing building shall be separate and independent from that of any other building, and, when available, every building shall have an independent connection with a public or private sewer.

**Exception:** Where one (1) building stands in the rear of another building on an interior lot, and no private sewer is available or can be constructed to the rear building through an adjoining court, yard, or driveway, the building drain from the front building shall be permitted to be extended to the rear building.

Swimming pools shall be provided with a separate and independent drainage system, which shall connect with a public or private sewer. The drainage pipe for the pool, floor drain, and similar fixtures shall be connected either to the side sewer downstream of the main building or structure, or to the building sewer downstream of the last plumbing fixture. The main building drain shall be equipped with an accessible backwater valve outside of the building or structure and upstream of the pool drain connection.

(2) Amend UPC chapter 6, table 6-5, Water Supply Fixture Units (WSFU) and Minimum Fixture Branch Pipe Sizes, as follows:

Delete "Lawn Sprinkler, each head" "for "Private Use" from the table.

- (3) Amend UPC section 708.0 Grade of Horizontal Drainage Piping to read as follows:
  - 708.0 Grade of Horizontal Drainage Piping. Horizontal drainage piping shall be run in practical alignment and a uniform slope of not less than one fourth (1/4) inch per foot (20.9 mm/m) or two (2) percent toward the point of disposal provided that, where it is impractical due to the depth of the street sewer or to the structural features or to the arrangement of any building or structure to obtain a slope of one-fourth (1/4) of an inch per foot (20.9 mm/m) or two (2) percent. Any such pipe or piping four (4) inches (100 mm) or larger in diameter may have a slope of not less than one-eighth (1/8) of an inch per foot (10.5 mm/m) or one (1) percent, only when first approved by the building official. Horizontal drainage piping connected to any dual flush gravity tank water closet shall slope a minimum of one -fourth (1/4) inch per foot.
- (4) Amend UPC Section 1101.11.2.2.2, Combined System, to read as follows:
  - 1101.11.2.2.2 Combined System. The secondary roof drains shall connect to the vertical piping of the primary storm drainage system conductor downstream of any horizontal offset below the roof. The primary storm drainage system shall connect to the building storm water that connects to an underground public storm sewer. The combined secondary and primary roof drain systems shall be sized in accordance with Section 1106.0 based on double the rainfall for the local area. A relief drain shall be connected to the vertical drain piping, within 20 feet of grade, using a wye-type fitting piped to daylight on the exterior of the building. The piping shall be sized as required for a secondary drain with a 4 inch maximum.

# 15.10.130 Washington State Energy Code adopted.

The Washington State Energy Code (WSEC), as adopted by the State Building Code Council in Chapter 51-11 WAC, is hereby adopted by reference. The Construction Administrative Code, as set forth in Chapter 15.05 BMC, shall be used for the administration of the Washington State Energy Code.

### 15.10.140 Washington Cities Electrical Code adopted

- (1) The November 12, 2009 edition of the Washington Cities Electrical Code (WCEC), Parts one and three, as published by the Washington Association of Building Officials is hereby adopted by reference and shall be known as the Burien Electrical Code.
- (2) The "Construction Administrative Code" as set forth in BMC 15.05 shall be used for the administration of the Burien Electrical Code.
- (3) Conflicts.
  - (a) The requirements of this chapter will be observed where there is any conflict between this chapter and the National Electrical Code (NFPA 70), Centrifugal Fire Pumps (NFPA 20), the Emergency and Standby Power Systems (NFPA 110), ANSI/TIA/EIA 568-B, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, or ANSI/TIA/EIA 570.
  - (b) The National Electrical Code will be followed when there is any conflict between standard for Installation of Stationary Pumps for Fire Protection (NFPA 20), standard for Emergency and Standby Power Systems (NFPA 110), ANSI/TIA/EIA 568-B, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, ANSI/TIA/EIA 570-B, and the National Electrical Code (NFPA 70).
  - (c) In accordance with RCW 19.28.010(3), when the State of Washington, Department of Labor and Industries adopts a more current edition of the National Electrical Code (NFPA 70), the building official may supplement use of the Burien Electrical Code with newly adopted editions of the National Electrical Code. Provisions in the annex chapters of the National Electrical Code shall not apply unless specifically referenced in the adopting ordinance.